

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/667,671 | 09/23/2003 | Hiroshi Takei | 242831US0 | 9100 |
| 22850 7590 10/29/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET | | | EXAMINER · | |
| | | | ZIMMER, MARC S | |
| ALEXANDRIA, VA 22314 | | ART UNIT | PAPER NUMBER | |
| | | | 1796 | |
| | | | | |
| | | | NOTIFICATION DATE | DELIVERY MODE |
| | | | 10/29/2007 | ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com oblonpat@oblon.com jgardner@oblon.com

| | Application No. | Applicant(s) | | | | | |
|--|---|---|--|--|--|--|--|
| | 10/667,671 | TAKEI ET AL. | | | | | |
| Office Action Summary | Examiner | Art Unit | | | | | |
| | Marc S. Zimmer | 1712 | | | | | |
| The MAILING DATE of this communication app | ears on the cover sheet with the c | orrespondence address | | | | | |
| Period for Reply | | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period versilized to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be timused and will expire SIX (6) MONTHS from a cause the application to become ABANDONE! | . the mailing date of this communication. (35 U.S.C. § 133). | | | | | |
| Status | | | | | | | |
| 1) Responsive to communication(s) filed on 14 A | <u>ugust 2007</u> . | | | | | | |
| ,_ | | | | | | | |
| · | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | | |
| Disposition of Claims | | | | | | | |
| 4)⊠ Claim(s) <u>1-8 and 13-19</u> is/are pending in the application. | | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | | |
| 6) Claim(s) 1-8 and 13-19 is/are rejected. | | | | | | | |
| · — · · · — · · · · · · · · · · · · · · | 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | | |
| Application Papers | | | | | | | |
| 9)☐ The specification is objected to by the Examine | | | | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner. | | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | |
| • | Carrinton. Note the attached emoc | 7.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0 | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | | |
| a) ⊠ All b) □ Some * c) □ None of: | | | | | | | |
| 1. ☑ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in Application No | | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage 3. Stage 3. Stage 3. Stage | | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | |
| | | | | | | | |
| Attachment(s) | | | | | | | |
| 1) Notice of References Cited (PTO-892) | (PTO-413) | | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date Notice of Informal Patent Application | | | | | | | |
| Paper No(s)/Mail Date 6) Other: | | | | | | | |

The Examiner has reconsidered the rejection over JP 52-102678 and concluded that the claims are, in fact, patentable over this document because its teachings are extremely vague and to bridge the gap between that which is claimed and that which is contemplated by the reference would necessitate that the Examiner rely too much on hindsight. Okami, on the other hand, teaches every element of the claimed invention except for the chemical makeup of the adhesion promoter and the Examiner believes that the withdrawal of this rejection is premature, Applicant's Declaration under Rule 1.132 notwithstanding.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8, and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okami et al., U.S. patent # 6,074,963 for the reasons already of record.

Concerning the rejection over Okami, it has been the Examiner's contention that (i) Okami mentions adhesion promoters, referred to as adhesives in column 5, line 50, and (ii) although the reference is silent as to what adhesives are desirable, those disclosed in the claims are obvious, and, hence, (iii) the claimed laminate is obvious in

Application/Control Number: 10/667,671

Art Unit: 1712

view of the teachings of Okami which anticipates every element of the claimed invention except for the particular structural attributes of the claimed adhesion promoter.

Applicant has furnished a Rule 1.132 Declaration that outlines a pair of experiments wherein the adhesion of a composition exemplary of Applicant's invention to a polyimide-based film and a polyethylene naphthalate-based film is compared with the composition described by Okami. Ostensibly, Applicant will agree that the meaningful difference between the instant- and prior art compositions is that the latter is devoid of an adhesion promoter, let alone one having the structural attributes outlined in the claims. The outcome of those experiments is that the instant composition exhibits robust adhesion to the aforementioned films whereas the prior art composition exhibits no adhesion. Applicant alleges that this is an unexpected outcome but the Examiner respectfully disagrees. Indeed, the recognized role of an adhesion promoter is to do just that, promote/facilitate adhesion between the polymer matrix and a substrate. It does so by creating formal covalent chemical bonds between available chemical moieties on the substrate and available chemical moieties within the polymer. That is to say, the adhesion promoter contains at least one group that is chemically complimentary to a group found in the polymer matrix and a second group that is chemically complimentary with groups found at the surface of the substrate. Insofar as the prior art polysiloxane is peroxide/hydrosilylation curable, vinyl groups and SiH groups are obvious of substituents that an adhesion promoter could be outfitted with to create bonds with the host polymer.

As to the other functional group, the reinforcing material layer is one of a polyester, a polyimide, an acrylic resin, etc. Functional groups contained within these polymers based on the building blocks from which they are made may include carboxylic acid groups, amine groups, hydroxy groups. The skilled artisan will recognize that the second functional group of the adhesion promoter should be one that reacts with these and, further, that silicon-bound alkoxy groups and epoxy groups are obvious candidates. Again, Applicant's themselves have described these same adhesion promoters repeatedly for bonding silicones with a multitude of different substrates.

The Examiner has noted that Applicants remarks emphasize that the instant invention shows markedly better adhesion with non-porous substrates than does the prior art composition, a result that is not unexpected in the Examiner's estimation. If Applicant had any firm support for inserting the limitation that the intermediate layer is non-porous, the Examiner would then be inclined to withdraw this rejection but nowhere in Applicant's Specification is the phrase "non-porous" disclosed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

Application/Control Number: 10/667,671 Page 5

Art Unit: 1712

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 4, 2007

MARC S. ZIMMER
PRIMARY EXAMINER